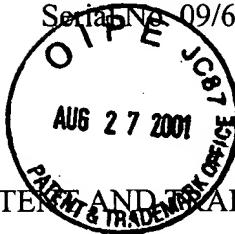


I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on August 23, 2001.

Frank C Eisenschenk  
Frank C. Eisenschenk, Ph.D., Patent Attorney

DECLARATION UNDER 37 C.F.R. § 1.131  
Examining Group 1617  
Patent Application  
Docket No. UTR-104  
Serial No. 09/654,357



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner : Helen Nguyen  
Art Unit : 1615  
Applicants : Michael B. Zemel, Hang Shi, Paula C. Zemel  
Serial No. : 09/654,357  
Filed : September 1, 2000  
For : Materials and Methods for the Treatment or Prevention of Obesity

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

DECLARATION UNDER 37 C.F.R. § 1.131

Sir:

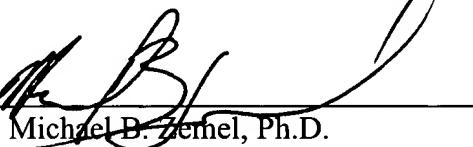
DR. MICHAEL B. ZEMEL, DR. HANG SHI, AND DR. PAULA C. ZEMEL DECLARE:

1. THAT we are co-inventors of the invention disclosed and claimed in U.S. Application Serial No. 09/654,357.
  
2. THAT said invention was completed in the United States prior to January 2000, as shown by the following exhibits. We conceived and reduced to practice methods for the stimulation of lipolysis in animals by increasing the amounts of dietary calcium consumed by these animals. Dietary calcium is provided in the form of calcium carbonate or powdered non-fat milk. Exhibit 1 shows that increasing dietary calcium stimulates lipolysis. The effects of a high calcium diet on adipocyte lipolysis was assayed using a glycerol release assay as described in Example 2 of the above-identified patent application.

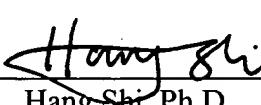
3. THAT Exhibit 1 is a copy of pages taken from a laboratory record created and maintained in the normal course of laboratory operations, prior to January 2000. The completion date of the experiments and analyses recorded in these laboratory notebook pages have been redacted. We hereby attest that these redacted dates are prior to the critical date.

We hereby further declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Further, Declarants sayeth not.

By:   
Michael B. Zemel, Ph.D.

Date: August 21, 2001

By:   
Hang Shi, Ph.D.

Date: Aug 21. 2001

By: \_\_\_\_\_  
Paula C. Zemel, Ph.D.

Date: \_\_\_\_\_

missing paula's signature.

I assume that all  
need to sign.

OK paula's sign.is on the  
following pages.



### PHOTOMETRY/GLYCOL-HI

ID	I	mol/l
STD 1	1.542	0.000
STD 1	1.536	0.000
MEAN =	1.542	SD= 0.000 RSD= 0.483
STD 2	1.45	1.000
STD 2	1.44	1.000
MEAN =	1.44	SD= 0.009 RSD= 0.072
STD 3	3.060	2.500
STD 3	3.097	2.500
MEAN =	3.078	SD= 0.026 RSD= 0.844
STD 4	3.319	5.000
STD 4	3.315	5.000
MEAN =	3.317	SD= 0.002 RSD= 0.024

### PHOTOMETRY GLYZEROL

ID	I	mol/l
STD 1	2.006	0.000
STD 1	1.995	0.000
MEAN =	2.000	SD= 0.007 RSD= 0.350
STD 2	2.980	0.050
STD 2	3.001	0.050
MEAN =	2.994	SD= 0.009 RSD= 0.306
STD 3	8.394	0.100
STD 3	8.417	0.100
MEAN =	8.405	SD= 0.016 RSD= 0.190
STD 4	10.77	0.250
STD 4	10.76	0.250
MEAN =	10.76	SD= 0.014 RSD= 0.130
STD 5	15.36	0.500
STD 5	15.36	0.500
MEAN =	15.36	SD= 0.000 RSD= 0.000
STD 6	15.44	1.000
STD 6	15.45	1.000
MEAN =	15.44	SD= 0.009 RSD= 0.068
1	4.773	0.074
1	4.762	0.074
1a MEAN =	0.074	SD= 0.000 RSD= 0.000
2	4.096	0.036
2	4.070	0.035
1b MEAN =	0.085	SD= 0.000 RSD= 0.000
3	6.028	0.143
3	6.022	0.143
2a MEAN =	0.143	SD= 0.000 RSD= 0.000
4	3.148-0.016L	
4	3.170-0.014L	
2b MEAN =	-0.015	SD= 0.001 RSD=-6.667
5	3.473	0.002
5	3.479	0.003
2c MEAN =	0.002	SD= 0.000 RSD= 0.000
6	5.089	0.092
6	5.085	0.091
4a MEAN =	0.091	SD= 0.000 RSD= 0.000
7	4.540	0.061
7	4.530	0.061

4a	MEAN = 0.091	SD = 0.000	RSD = 0.000
4b	MEAN = 0.0614	SD = 0.000	RSD = 0.000
5a	MEAN = 0.138	SD = 0.000	RSD = 0.000
5b	MEAN = 0.139	SD = 0.000	RSD = 0.000
6a	MEAN = 0.028	SD = 0.000	RSD = 0.000
6b	MEAN = -0.065	SD = 0.000	RSD = 0.000
7a	MEAN = 0.133	SD = 0.000	RSD = 0.000
7b	MEAN = 0.142	SD = 0.000	RSD = 0.000
8a	MEAN = 0.035	SD = 0.001	RSD = 2.857
8b	MEAN = 0.086	SD = 0.000	RSD = 0.000
9a	MEAN = 0.019	SD = 0.000	RSD = 0.000
9b	MEAN = 0.088	SD = 0.000	RSD = 0.000
10a	MEAN = 0.107	SD = 0.000	RSD = 0.000
10b	MEAN = -0.040	SD = 0.000	RSD = 0.000
11a	MEAN = 0.044	SD = 0.000	RSD = 0.000
11b	MEAN = 0.127	SD = 0.024	RSD = 18.89
12a	MEAN = 0.144	SD = 0.000	RSD = 0.000
12b	MEAN = 0.273	SD = 0.012	RSD = 4.395
13a	MEAN = 0.078	SD = 0.000	RSD = 0.000
13b	MEAN = 0.077	SD = 0.001	RSD = 1.298
14a	MEAN = 0.127	SD = 0.006	RSD = 4.724
14b	MEAN = -0.077	SD = 0.000	RSD = 0.000
15a	MEAN = 0.052	SD = 0.001	RSD = 1.929
15b	MEAN = 5.045	SD = 0.089	
	30	5.008	0.087

15a MEAN= 0.052 SD= 0.001 RSD= 1.923  
 30 5.045 0.089  
 30 5.008 0.087  
 15b MEAN= 0.088 SD= 0.001 RSD= 1.136  
 31 2.682-0.041L  
 31 2.659-0.043L  
 16a MEAN= -0.042 SD= 0.001 RSD=-2.381  
 32 5.409 0.109  
 32 5.397 0.109  
 16b MEAN= 0.109 SD= 0.000 RSD= 0.000  
 33 3.110-0.018L  
 33 3.110-0.018L  
 1a MEAN= -0.018 SD= 0.000 RSD= 0.000  
 34 3.300-0.002L  
 34 3.410-0.001L  
 1b MEAN= -0.002 SD= 0.000 RSD= 0.000  
 35 3.404-0.001L  
 35 3.113-0.017L  
 2a MEAN= -0.009 SD= 0.011 RSD=-122.2  
 36 2.359-0.059L  
 36 2.348-0.060L  
 2b MEAN= -0.060 SD= 0.000 RSD= 0.000  
 37 3.371-0.003L  
 37 3.382-0.003L  
 3b MEAN= -0.003 SD= 0.000 RSD= 0.000  
 38 3.064-0.020L  
 38 3.067-0.020L  
 4a MEAN= -0.020 SD= 0.000 RSD= 0.000  
 39 2.652-0.043L  
 39 2.640-0.044L  
 4b MEAN= -0.044 SD= 0.000 RSD= 0.000  
 40 2.802-0.005L  
 40 2.746-0.038L  
 5a MEAN= -0.037 SD= 0.002 RSD=-5.406  
 41 5.112 0.093  
 41 4.785 0.075  
 5b MEAN= 0.084 SD= 0.012 RSD= 14.28  
 42 5.600 0.120  
 42 5.577 0.118  
 6a MEAN= 0.119 SD= 0.001 RSD= 0.840  
 43 3.639 0.012  
 43 3.652 0.012  
 6b MEAN= 0.012 SD= 0.000 RSD= 0.000  
 44 5.071 0.091  
 44 5.000 0.090  
 7a MEAN= 0.090 SD= 0.000 RSD= 0.000  
 45 3.980 0.030  
 45 3.985 0.031  
 7b MEAN= 0.030 SD= 0.000 RSD= 0.000  
 46 4.219 0.044  
 46 4.212 0.043  
 8a MEAN= 0.043 SD= 0.000 RSD= 0.000  
 47 4.821 0.077  
 47 4.793 0.075  
 8b MEAN= 0.076 SD= 0.001 RSD= 1.315  
 48 4.956 0.084  
 48 4.955 0.084  
 9a MEAN= 0.084 SD= 0.000 RSD= 0.000  
 49 4.111 0.038  
 49 4.082 0.036  
 9b MEAN= 0.037 SD= 0.001 RSD= 2.702  
 50 4.999 0.087  
 50 5.004 0.087  
 10a MEAN= 0.087 SD= 0.000 RSD= 0.000  
 51 4.033 0.033  
 51 4.046 0.034  
 10b MEAN= 0.033 SD= 0.000 RSD= 0.000  
 52 4.807 0.076  
 52 4.792 0.075  
 11a MEAN= 0.075 SD= 0.000 RSD= 0.000  
 53 5.049 0.089  
 53 5.044 0.089

49 4.111 0.038  
MEAN= 0.037 SD= 0.001 RSD= 2.702  
50 4.999 0.087  
50 5.004 0.087  
MEAN= 0.087 SD= 0.000 RSD= 0.000  
51 4.033 0.033  
51 4.046 0.034  
MEAN= 0.033 SD= 0.000 RSD= 0.000  
52 4.807 0.076  
52 4.792 0.075  
MEAN= 0.075 SD= 0.000 RSD= 0.000  
53 5.049 0.089  
53 5.044 0.089  
MEAN= 0.089 SD= 0.000 RSD= 0.000  
54 5.669 0.124  
54 5.674 0.124  
MEAN= 0.124 SD= 0.000 RSD= 0.000  
55 5.830 0.132  
55 5.793 0.130  
MEAN= 0.131 SD= 0.001 RSD= 0.763  
56 5.551 0.117  
56 5.523 0.115  
MEAN= 0.116 SD= 0.001 RSD= 0.862  
57 3.558 0.007  
57 3.551 0.007  
MEAN= 0.007 SD= 0.000 RSD= 0.000  
58 6.217 0.154  
53 6.194 0.153  
MEAN= 0.153 SD= 0.000 RSD= 0.000  
59 1.984-0.080L  
59 1.982-0.080L  
MEAN= -0.080 SD= 0.000 RSD= 0.000  
60 5.393 0.108  
60 5.395 0.108  
MEAN= 0.108 SD= 0.000 RSD= 0.000  
61 5.425 0.110  
61 5.424 0.110  
MEAN= 0.110 SD= 0.000 RSD= 0.000  
62 2.896-0.029L  
62 2.897-0.029L  
MEAN= -0.029 SD= 0.000 RSD= 0.000  
63 5.112 0.093  
63 5.154 0.095  
MEAN= 0.094 SD= 0.001 RSD= 1.063  
64 5.840 0.133  
64 5.849 0.133  
MEAN= 0.133 SD= 0.000 RSD= 0.000  
65 5.858 0.134  
65 5.859 0.134  
MEAN= 0.134 SD= 0.000 RSD= 0.000  
66 5.021 0.088  
66 5.011 0.087  
MEAN= 0.087 SD= 0.000 RSD= 0.000  
67 5.401 0.109  
67 5.413 0.109  
MEAN= 0.109 SD= 0.000 RSD= 0.000  
68 5.938 0.138  
68 5.860 0.134  
MEAN= 0.136 SD= 0.002 RSD= 1.470  
69 5.449 0.111  
69 5.256 0.101  
MEAN= 0.106 SD= 0.007 RSD= 6.603  
70 2.213-0.067L  
70 2.209-0.067L  
MEAN= -0.067 SD= 0.000 RSD= 0.000  
71 5.759 0.129  
71 5.740 0.127  
MEAN= 0.128 SD= 0.001 RSD= 0.781

8 0.221 0.1988 1.11167  
0.947136

ACTH(100nM)

con

1a	0.038	0.3977	0.095549
1b	0.057	0.3636	0.156766
2a	0.058	0.4902	0.118319
2b		0.4441	
3b	0.056	0.3771	0.148502
4a	0.035	0.5005	0.06993
4b	0.006	0.5643	0.010633

avg 0.117813

high-Ca

5a	0.017	0.4475	0.037989
5b	0.177	0.3302	0.536039
6a	0.21	0.4576	0.458916
6b	0.075	0.4078	0.183914
7a	0.174	0.3832	0.454071
7b	0.098	0.5349	0.183212
8a	0.115	0.4088	0.281311
8b	0.154	0.2215	0.69526

avg 0.39896

medium-dairy

9a	0.166	0.5304	0.312971
9b	0.107	0.4747	0.225406
10a	0.169	0.53	0.318868
10b	0.103	0.5327	0.193355
11a	0.155	0.3235	0.479134
11b	0.172	0.3931	0.437548
12a	0.216	0.2288	0.944056
12b	0.226	0.2761	0.818544

avg 0.466235

high-dairy

13a	0.207	0.3945	0.524715
13b	0.069	0.3999	0.172543
14a	0.253	0.307	0.824104
14b	0.237	0.2847	0.832455
15a	0.196	0.2033	0.964092
15b	0.198	0.3495	0.566524
16a	0.023	0.4219	0.054515
16b	0.18	0.4152	0.433526

avg 0.616851